

History of Technology

Edited by
Charles Singer, E. J. Holmyard,
A. R. Hall and Trevor I. Williams

Volume VIII

Consolidated Indexes

Compiled by Richard Raper

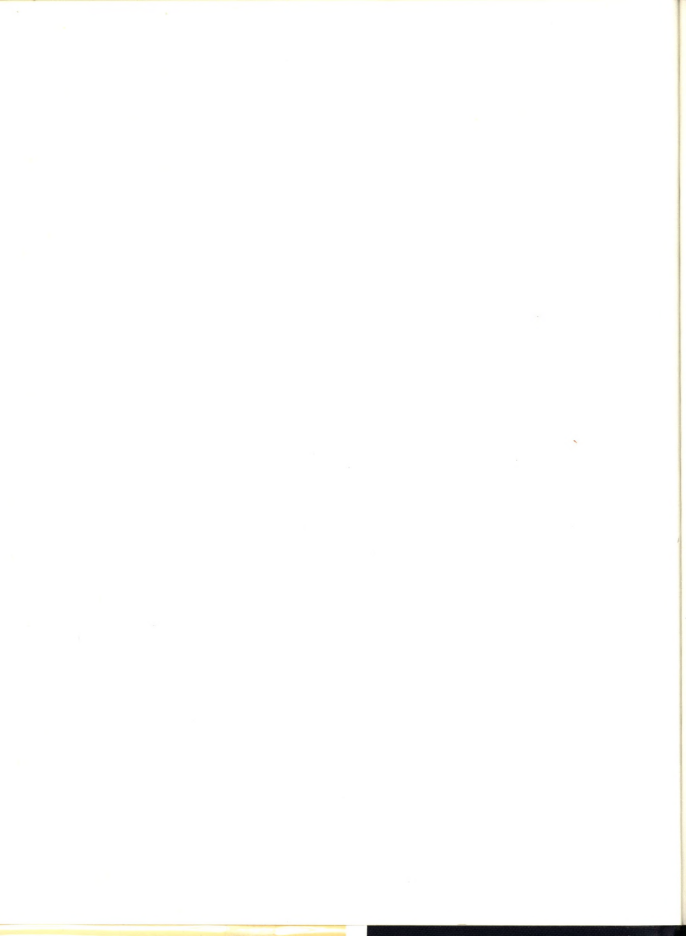
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A History of Technology has established itself as the standard work of reference in its field, providing a full and authoritative survey of technological development from the earliest times to 1950. Deployed over 5,800 pages in seven volumes, the learning collected in the *History* is the starting point for those seeking information on almost all aspects of technical innovation and practice. To provide better access to that information, in this, the concluding volume in the series, the indexes to the previous seven volumes have been revised and consolidated to form comprehensive indexes of names, places, and subjects for the series as a whole, with the addition of a full list of the contents of each volume.

With a wealth of new sub-entries and cross-references, these indexes provide users of the *History* with an essential tool, both for locating specific references and connections, and for tracing the development of major subjects through periods spanning several or all the volumes of this important work.



A HISTORY OF
TECHNOLOGY



A HISTORY OF TECHNOLOGY

EDITED BY

CHARLES SINGER · E. J. HOLMYARD
A. R. HALL and TREVOR I. WILLIAMS

VOLUME VIII
CONSOLIDATED INDEXES

COMPILED BY

RICHARD RAPER

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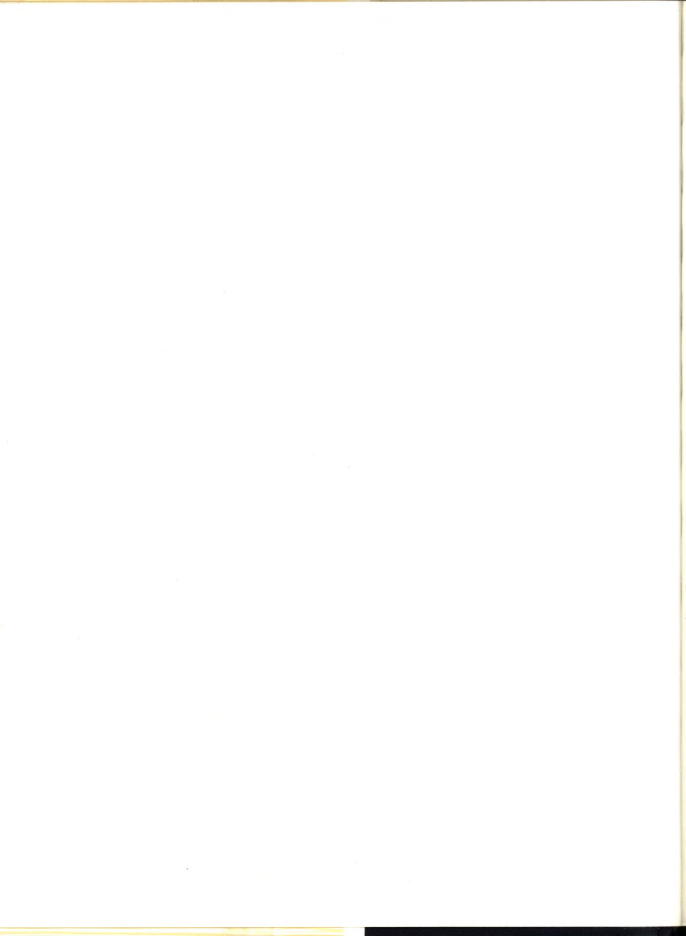
FOREWORD

SOME thirty years have passed since I was first associated with the preparation of *A History of Technology*, and five since the seventh and final volume was published in 1978. It was designed as a broad conspectus which would serve as a primary source for those wishing to inform themselves of the general course of the history of technology and, through the extensive bibliographies, provide a guide to more specialized works. It did not aspire to be a definitive work, because scholarly research is steadily uncovering new factual information leading to new insights and interpretations. In particular, knowledge of the development of Chinese technology has been immensely extended by the publication of the greater part of Joseph Needham's massive *Science and Civilisation in China*.

Over the years, the *History of Technology* has firmly established itself as a standard work of reference in its field, providing a useful starting-point for those seeking information on almost every aspect of the subject. Its value for this purpose depends very much on clear and comprehensive indexing and we were fortunate in our choice of indexers for the individual volumes of the work. However, many topics—such as building, agriculture, textiles, ceramics, mining, and shipbuilding, to name only a few—are important over such long periods of time that recourse may be necessary to most, or even all of the six original indexes. Equally, it is not always easy to predict in which volumes more specialized topics are dealt with. I therefore welcomed a proposal by the Oxford University Press that a comprehensive index of the whole work should be prepared as a separate volume under the direction of Mr Richard Raper and I congratulate him on its completion. It is a fitting conclusion to a work which finally extended to nearly three million words.

Oxford
March, 1983

TREVOR I. WILLIAMS



PREFACE

With Hints for Using the Indexes

IT seems strange compiling a composite index system for a work with indexes already available at the end of volumes I–V and volume VII. Yet by combining them it has been possible to provide a thread of continuity through time as modern technology has evolved. Additionally this revision of the indexes provides opportunities for introducing some improvements in style and layout which were not so necessary for the indexes in their separate volumes.

It is only proper to recognize the painstaking work provided by my predecessors as indexers of each volume, upon which the consolidated indexes are founded. They are: Mr P. G. Burbridge for volumes I and II; Miss M. A. Hennings for volumes III, IV, and V; and Mr J. Tudge for combined indexes to volumes VI and VII.

It also appropriate to thank my helpers who made this work possible. They are: Miss D. Bragg; Mrs Nina Kurkjian; Mrs Kay Smith; and Mrs Mary Symons. I also have to express my appreciation to Dr Trevor I. Williams, the remaining Editor of the history, and Mr Ivon Asquith of the OUP for their patience during the extended time this work took for its completion. At first I thought the task would be straightforward; but when long strings of page numbers occurred in the combined version a great amount of re-indexing became necessary. With the job now done, however, I wish users some happy hunting and fruitful answers in this comprehensive *History of Technology*.

Hints for users

It may seem unusual to offer suggestions to potential readers of the history on the use of the indexes. After all, most of us with sufficient background of learning to make the content of the *History of Technology* worth study will be no strangers to indexes. Yet there are methods for using indexes to better advantage and the few suggestions given here may stimulate users to create their own search strategies. In these 'hints' further details given about the four parts of this volume are followed by some brief notes on search strategy.

PART 1—It summarizes the lists of contents for all the seven volumes of the text and is useful for tracing the development of main subject areas through the ages.

PART 2—The Index of Names lists the names of inventors, discoverers, and

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achievers referred to in the text. Their dates are not included although such information may be found in the indexes to each volume. For the ease of a search, many references to separate individuals are subdivided by subjects. For information on the literature, users should consult the appropriate entries cited in the bibliographies at the end of chapters. Although the names listed in the Part 2 index may be a starting-point for a search, the destination might well be a reference in a bibliography.

PART 3—The Index of Place Names lists towns and cities and some countries cited in the text. As with Part 2, this index provides further subdivisions by subjects for places with more than a few page references. Some towns and cities are also listed in the Part 4 index with reference to Town planning. Although some countries are listed briefly in Part 3, more detail on them is provided in Part 4 where they are treated as subjects.

PART 4—The Index of Subjects, including countries, provides access to the subject content of the text. Many cross-references are provided to assist users with their search.

Notes—Most users will find the correct reference with little difficulty. Sometimes, however, the information sought is not to be found immediately, so some alternative strategy becomes necessary for its ultimate location.

Users seeking information can apply several methods depending on the sort of information required and the purpose of such a search. For example, the Index of Names will suffice for a search on the work of Leonardo da Vinci; similarly the Index of Place-names would be consulted for reported happenings in Marseilles. When a researcher has a fairly precise search objective, then these two indexes will provide both volume and page references quickly.

However, some investigators may not know exactly what they want, but vaguely have a wish to search within a certain broad subject area and then let inspiration do the rest. For example, a search might begin on the effect of mechanization, lead through aspects of 'Mass production' (for which there is a subject heading) and finish with the evolution of the motor car. In such cases a user may expedite the process by compiling a list of five or six related subjects that seem relevant. A browse through the subject index using the chosen subjects as a starting-point will help the investigator define the objective more closely. This is where the cross-reference system can be used constructively to link up with subject material not previously considered. Finally, sub-entry subjects of reasonable importance should not be ignored as they are usually indexed again as main subjects. For example

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under Drainage, 'pumps' offers only three page references; yet under the main heading 'Pumps' some sixty-three references are cited in thirty-one subject subheadings.

Hove

February, 1983

RICHARD RAPER



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THE TWENTIETH CENTURY

c.1900 TO c.1950

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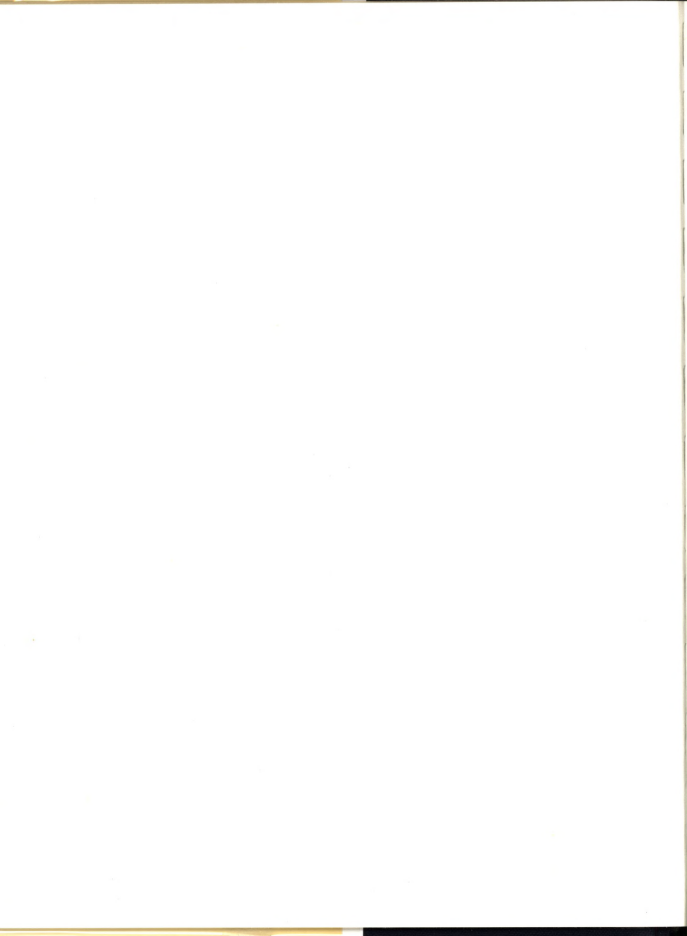
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PART 4

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